

Appln. No. 10/081,502
Amendment dated June 15, 2005
Reply to Office Action of Mar. 15, 2005
Docket No. BOC9-2001-0017 (261)

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the instant application:

Listing of Claims:

1 (Currently Amended) A method of disambiguating database search results comprising:

retrieving multiple database entries responsive to a database search, wherein said retrieved database entries include a plurality of common data fields;

processing said retrieved database entries according to predetermined speech interface criteria, said processing step including at least one processing task selected from a group consisting of determining whether data items within said common data fields are able to be accurately pronounced by a speech interface, excluding data fields of the retrieved database entries having common data items, determining individual lengths of data items within the common data fields, and determining an average length of data items within a particular one of the common data fields;

selecting at least one data field from said plurality of common data fields for uniquely identifying each said retrieved database entry; and

presenting, through [[a]] the speech interface, data items corresponding to said selected data field for each said retrieved database entry, wherein said speech interface is used in conjunction with a system in which said database search is performed, and wherein said speech interface provides users of said system with an interface for searching for information contained within a database in which said database search was conducted and with an interface for audibly receiving results of said database search.

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2. (Original) The method of claim 1, said processing step comprising:
excluding, from said selecting step, data fields of said retrieved database entries
having common data items.

3. (Currently Amended) The method of claim ~~[[2]]~~ 1, said processing step
further comprising:

~~detecting identifying content within~~ data fields of said retrieved database entries,
~~where the content includes having pronounceable~~ data items ~~that are not able to be~~
~~accurately pronounced using the speech interface;~~

excluding from said selecting step, data fields having content that is not able to be
accurately pronounced using the speech interface, wherein content not able to be
accurately pronounced is determined by at least one of a determination technique based
upon a failed dictionary lookup where the dictionary contains pronounceable data items
and a determination technique that analyzes patterns of consonant-vowel combinations
occurring within the content.

4. (Original) The method of claim 3, said processing step further comprising:
determining a data field from said plurality of common data fields having data
items with a smallest average length.

5. (Currently Amended) The method of claim 3, said selecting step further
comprising:

~~determining a data field from said plurality of common data fields having data~~
~~items which do not exceed a predetermined maximum threshold.~~

excluding, from said selecting step, data fields having data items that exceed a
predetermined maximum threshold, wherein the maximum threshold is determined from

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a) empirical analysis of a relative ease with which users recall audibly presented menu items.

6. (Currently Amended) A method of disambiguating database search results comprising:

retrieving multiple database entries responsive to a database search, wherein said retrieved database entries include a plurality of common data fields;

processing said retrieved database entries according to predetermined speech interface criteria for a speech interface, said processing step including at least one processing task selected from a group consisting of determining whether data items within said common data fields are able to be accurately pronounced by a speech interface, excluding data fields of the retrieved database entries having common data items, determining individual lengths of data items within the common data fields, and determining an average length of data items within a particular one of the common data fields;

selecting at least one data field from said plurality of common data fields for uniquely identifying each said retrieved database entry; and

querying as to which one of said common data fields, which uniquely identify each of said retrieved database entries, is to be used to disambiguate said retrieved database entries, wherein said speech interface is used in conjunction with a system in which said database search is performed, and wherein said speech interface provides users of said system with an interface for searching for information contained within a database in which said database search was conducted and with an interface for audibly receiving results of said database search.

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- 7 (Currently Amended) The method of claim 6, further comprising:
receiving a user input selecting one of said common fields which uniquely identify each of said retrieved database entries, wherein said processing step further comprises:
detecting content within data fields of said retrieved database entries,
where the content includes data items that are not able to be accurately pronounced using the speech interface; and
excluding from said selecting step, data fields having content that is not able to be accurately pronounced using the speech interface, wherein content not able to be accurately pronounced is determined by at least one of a determination technique based upon a failed dictionary lookup where the dictionary contains pronounceable data items and a determination technique that analyzes patterns of consonant-vowel combinations occurring within the content.
8. (Currently Amended) The method of claim 6 [[7]], further comprising:
receiving a user input specifying a data item associated with said selected data field to disambiguate said retrieved database entries; and
presenting through the speech interface, data items associated with said selected data field for each said retrieved database entry, wherein the presenting step audibly presents a list of data items extracted from the selected data field without audibly presenting a menu selection choice associated with each presented data item.
9. (Currently Amended) The method of claim 7, further comprising:
presenting, through [[a]] the speech interface, data items associated with said selected data field for each said retrieved database entry, wherein the querying step excludes data fields of retrieved database entries having common data items.

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11. (Currently Amended) A machine-readable storage, having stored thereon a computer program having a plurality of code sections executable by a machine for causing the machine to perform the steps of:

retrieving multiple database entries responsive to a database search, wherein said retrieved database entries include a plurality of common data fields;

processing said retrieved database entries according to predetermined speech interface criteria, said processing step including at least one processing task selected from a group consisting of determining whether data items within said common data fields are to be accurately pronounced by a speech interface, excluding data fields of the retrieved database entries having common data items, determining individual lengths of data items within the common data fields, and determining an average length of data items within a particular one of the common data fields;

selecting at least one data field from said plurality of common data fields for uniquely identifying each said retrieved database entry; and

presenting, through [[a]] the speech interface, data items corresponding to said selected data field for each said retrieved database entry, wherein said speech interface is used in conjunction with a system in which said database search is performed, and wherein said speech interface provides users of said system with an interface for information contained within a database in which said database search was conducted and with an interface for audibly receiving results of said database search.

1. (Original) The machine-readable storage of claim 10, said processing step comprising:

excluding, from said selecting step, data fields of said retrieved database entries having common data items.

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12. (Currently Amended) The machine-readable storage of claim 10 [11], said processing step further comprising:

detecting identifying content within data fields of said retrieved database entries, where the content includes having pronounceable data items that are not able to be accurately pronounced using the speech interface;

excluding from said selecting step, data fields having content that is not able to be accurately pronounced using the speech interface, wherein content not able to be accurately pronounced is determined by at least one of a determination technique based upon a failed dictionary lookup where the dictionary contains pronounceable data items and a determination technique that analyzes patterns of consonant-vowel combinations occurring within the content.

13. (Original) The machine-readable storage of claim 12, said processing step further comprising:

determining a data field from said plurality of common data fields having data items with a smallest average length.

14. (Currently Amended) The machine-readable storage of claim 12, said processing step further comprising:

~~determining a data field from said plurality of common data fields having data items which do not exceed a predetermined maximum threshold;~~

excluding, from said selecting step, data fields having data items that exceed a predetermined maximum threshold, wherein the maximum threshold is determined from an empirical analysis of a relative ease with which users recall audibly presented menu items.

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15. (Currently Amended) A machine-readable storage, having stored thereon a computer program having a plurality of code sections executable by a machine for causing the machine to perform the steps of:

retrieving multiple database entries responsive to a database search, wherein said retrieved database entries include a plurality of common data fields;

processing said retrieved database entries according to predetermined speech interface criteria for a speech interface, said processing step including at least one processing task selected from a group consisting of determining whether data items within said common data fields are able to be accurately pronounced by a speech interface, excluding data fields of the retrieved database entries having common data items, determining individual lengths of data items within the common data fields, and determining an average length of data items within a particular one of the common data fields;

selecting at least one data field from said plurality of common data fields for uniquely identifying each said retrieved database entry; and

querying as to which one of said common data fields, which uniquely identify each of said retrieved database entries, is to be used to disambiguate said retrieved database entries, wherein said speech interface is used in conjunction with a system in which said database search is performed, and wherein said speech interface provides users of said system with an interface for searching for information contained within a database in which said database search was conducted and with an interface for audibly receiving results of said database search.

15. (Currently Amended) The machine-readable storage of claim 15, further comprising:

receiving a user input selecting one of said common fields which uniquely identify each of said retrieved database entries, wherein said processing step further comprises:

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detecting content within data fields of said retrieved database entries, where the content includes data items that are not able to be accurately pronounced using the speech interface; and

excluding from said selecting step, data fields having content that is not able to be accurately pronounced using the speech interface, wherein content not able to be accurately pronounced is determined by at least one of a determination technique based upon a failed dictionary lookup where the dictionary contains pronounceable data items and a determination technique that analyzes patterns of consonant-vowel combinations occurring within the content.

17. (Currently Amended) The machine-readable storage of claim 16, further comprising:

receiving a user input specifying a data item associated with said selected data field to disambiguate said retrieved database entries, and;

presenting through the speech interface, data items associated with said selected data field for each said retrieved database entry, wherein the presenting step audibly presents a list of data items extracted from the selected data field without audibly presenting a menu selection choice associated with each presented data item.

18. (Currently Amended) The machine-readable storage of claim 16, further comprising:

presenting, through ~~[[a]]~~ the speech interface, data items associated with said selected data field for each said retrieved database entry, wherein the querying step excludes data fields of retrieved database entries having common data items.